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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,058	07/14/2003	Paul Arthur Layman	Chaudhry 24-16/075903-248	6891
29391	7590	05/24/2005	EXAMINER	
BEUSSE BROWNLEE WOLTER MORA & MAIRE, P. A. 390 NORTH ORANGE AVENUE SUITE 2500 ORLANDO, FL 32801			LEE, HSIEN MING	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/619,058	Applicant(s) LAYMAN ET AL.	
	Examiner Hsien-ming Lee	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

HSIEN-MING LEE
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

[Signature]
5/3/05

DETAILED ACTION

Remarks

1. The objection and rejection, as set forth in the previous Office Action, have been withdrawn

Claim Objections

2. Claims 1, 2, 4-7, 10, 14, 15, 17, 19 and 20 objected to because of the following informalities: lacking antecedent basis.

The following changes are suggested:

In claim 1, at line 4, change “the top” into – **a** top --.

In claim 1, at lines 6-7, change “the ion beam” into – **an** ion beam --.

In claim 1, at line 10, “the dopant concentration” into – **a** dopant concentration --.

In claim 1, at line 11, change “the ion transmission properties of the material line “ into – **an** ion transmission properties of the **first** material line --.

In claim 2, at lines 1-4, change “the material line” into – the **first** material line --.

In claim 4, at line 1, change “the tilt angle” into – a tilted angle --.

In claim 5, at line 1, change “the material line” into – the **first** material line --.

In claim 6, at line 1, change “the height of the material line “ into -- **a** height of the **first** material line --.

In claim 7, at lines 2-3, change “the opposing side” into – **an** opposing side --.

In claim 10, at line 9, change “the top surface” into – **a** top surface --.

In claim 14, at line 2, change “the width and the height of each material line” into – **a** width and **a** height of each material line --.

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In claim 14, at line 3, the limitation “**desired** doping concentration” renders indefinite.
(Emphasis added)

In claim 15, at line 8, change “ the on beam” into – **an** ion beam --.

In claim 17, at line 1, the term “the transmissive properties “ is not consistent with the term “the transmission” in the base claim 15 (line 20).

In claim 19, at lines 5-6, change “the top surface” into – **a** top surface --.

In claim 20, at lines 1-2, change “the width and the height of each” into – **a** width and **a** height of each ... --.

In claim 20, at line 2, the limitation “**desired** threshold voltage” renders indefinite.
(Emphasis added)

Allowable Subject Matter

3. Claims 3, 8, 9, 11-13, 16 and 18 would be allowable if rewritten to overcome the objections, as set forth in this Office action, and to include all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

The closest prior art of record, Ooka to JP 8-162424 teaches a related art, as stated in the previous Office Action. Ooka, however, neither teaches nor suggests that the ion beam 40 *passes through* the first material line 33 prior to striking the plurality of doped semiconductor regions 34, 36 and 38; and an implanted ion dosage reaching the doped semiconductor region to increase a dopant concentration thereof is dependent upon an ion transmission properties of the first material line. Tsuchiaki to US 5,444,007 cannot remedy the deficiencies in Ooka, as stated in the applicant’s arguments on page 9 submitted 3/18/2005.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hsien-ming Lee whose telephone number is 571-272-1863. The examiner can normally be reached on Tuesday-Thursday (8:00 ~ 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 571-272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hsien-ming Lee
Primary Examiner
Art Unit 2823

May 23, 2005

HSIEN-MING LEE
PRIMARY EXAMINER

5/23/05